

## REMARKS

The present invention relates to novel degradation resistant FGF-1 and methods of producing and using the same. Claims 1-17 and 27 are pending and under consideration in the present application. Claims 18-26 and 28-48 were withdrawn without prejudice to the inclusion of the subject matter of these claims in any later filed application(s) in a Response to Restriction Requirement filed on June 28, 2004.

### Objection to the Specification

The Examiner has rejected the specification because it contains browser executable code on page 18. Applicants have amended the specification, specifically the paragraph beginning at page 18, line 6 and ending at line 29 of the same page to delete any browser executable code. No new matter has been added by way of the present amendments to the specification.

### Rejection of claims 7-8 pursuant to 35 U.S.C. §112, second paragraph

The Examiner has rejected claims 7-8 under 35 U.S.C. §112, second paragraph, for being indefinite. The Examiner states that the claims are indefinite because the claims could be interpreted to recite any FGF-1 polypeptide having a lysine at position 136, or not having an arginine at position 136, not the FGF-polypeptide recited in SEQ ID NO:2.

Applicants initially note that the Office Action Summary states that claims 1-17, which includes claims 7-8, are allowed. However, Applicants recognize this as a clerical error and address the Examiner's rejection below. Applicants also appreciate the Examiner's suggested claims amendments to claims 7 and 8.

Applicants, while not necessarily agreeing with the Examiner's reasoning behind the present rejection, but rather in a good faith effort to expedite prosecution of the present application, have amended claims 7 and 8 as indicated above. The present amendments to claims 7-8 clearly point out and distinctly claim the nucleic acids of the present invention, and are therefore not indefinite.

Applicants respectfully submit that the present amendments to claims 7-8 overcome the Examiner's rejection under 35 U.S.C. §112, second paragraph. Reconsideration and withdrawal of the rejection is respectfully requested at this time.

Rejection of claims 23-24 pursuant to 35 U.S.C. §112, first paragraph

The Examiner has rejected claim 27 under 35 U.S.C. §112, first paragraph, for lack of written description. The Examiner is of the opinion that the specification fails to provide adequate written description for derivatives and fragments of an FGF-1 polypeptide resistant to thrombin degradation. The Examiner is of the opinion that claim 27 encompasses a genus for which Applicants do not provide adequate written description.

Applicants, while not necessarily agreeing with the Examiner's reasoning, but rather in a good faith effort to expedite prosecution of this application, have amended claim 27 as indicated in the above claim listing. Applicants respectfully submit that written description for the SEQ ID NO:3, as presently claimed, exists throughout the specification as filed, in particular at page 2 and 3 of the Sequence Listing filed with the present application.

Applicants respectfully submit that in light of Applicants' present amendments, the Examiner's rejection of claim 27 under 35 U.S.C. §112, first paragraph, for lack of written description, should be reconsidered and withdrawn.

Rejection of claim 27 under 35 U.S.C. §112, first paragraph

The Examiner has rejected claim 27 pursuant to 35 U.S.C. §112, first paragraph, for lack of enablement. Specifically, the Examiner asserts that one of skill in the art would not know how to make and use a derivative or variant of the sequence set forth in SEQ ID NO:3.

Applicants, while not necessarily agreeing with the Examiner's reasoning, but rather in a good faith effort to expedite prosecution of the present application, have amended claim 27 as indicated in the claim listing above. Applicants respectfully submit that the claims as amended are supported in the specification as filed, in particular at page 40, beginning at line 6, where expression of the claimed nucleic acid is disclosed, and at page 72, beginning at line 3, where procedures for making the claimed nucleic acid are disclosed. The specification as filed provides methods of making and using the presently claimed FGF-1 nucleic acid that encodes a thrombin degradation resistant FGF-1 polypeptide, and is therefore enabled.

For the reasons set forth above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection of claim 27 pursuant to 35 U.S.C. §112, first paragraph.

Rejection of claim 27 under 35 U.S.C. §102(b)

The Examiner has rejected claim 27 pursuant to 35 U.S.C. §102(b) as being anticipated by Shireman et al. (2000, Journal of Vascular Surgery, 31; 382-390). The Examiner asserts that a derivative nucleic acid encoding a thrombin degradation resistant FGF polypeptide is anticipated by Shireman et al., which teaches an FGF-1 polypeptide with a serine to lysine substitution at position 130.

Applicants, while not necessarily agreeing with the Examiner's reasoning, but rather in a good faith effort to expedite prosecution of this application, have amended claim 27 as indicated in the above claim listing. Applicants respectfully argue that Shireman et al. does not teach the nucleic acid presently claimed, and therefore does not anticipate the present invention.

Applicants respectfully request reconsideration and withdrawal of the rejection of claim 27 pursuant to 35 U.S.C. §102(b).


Summary

Applicants respectfully submit that each rejection of the Examiner to the claims of the present application has been overcome, and that claims 1-17 and 27 are now in condition for allowance. Applicants further submit that no new matter has been added by way of the present amendment. Reconsideration and allowance of these claims is respectfully requested at the earliest possible date.

Respectfully submitted,  
Thomas Maciag *et al.*

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(Date)

By:

  
KATHRYN DOYLE, Ph.D, J.D.  
Registration No. 36,317  
MORGAN, LEWIS & BOCKIUS, LLP  
1701 Market Street  
Philadelphia, PA 19103-2921  
Telephone: (215) 963-5000  
Direct Dial: (215) 963-4723  
Facsimile: (215) 963-5001  
E-Mail: kdoyle@morganlewis.com  
Attorney for Applicants

KD/JDGB 